City Of SAN BRUNO

ANNUAL
WATER QUALITY REPORT
2007

Where City's Water Comes From

Throughout this report customers will be able to find useful information specifically related to the City of San Bruno water system, as well as information related to drinking water in general. The primary mission of this report is to summarize the past year's water quality data that are found in the tables at the end of this brochure. You will also find valuable information about City's current operations as well as future changes or improvements to the water system. The City of San Bruno continues its commitment to provide you with safe, high quality drinking water.

Sources of The City's Water

The supply of water for the City of San Bruno is derived from two primary sources, surface water and deep wells. Groundwater from the City's five wells is blended throughout the distribution system with water purchased from the San Francisco Public Utilities Commission (SFPUC). The SFPUC water supply comes from three major sources: Hetch Hetchy watershed in the Sierra Nevada Mountains, and two other watersheds in Alameda County and the San Francisco Peninsula.

Hetch Hetchy watershed, which is the largest in the SFPUC system, is located in Yosemite National Park. The Hetch Hetchy watershed provided approximately 94 percent of the total Bay Area water supply in 2007. Spring snowmelt flows down the Tuolumne River and is stored in Hetch Hetchy Reservoir. The high quality Hetch Hetchy water supply meets all federal and state criteria for watershed protection, disinfection treatment, bacteriological quality and operational standards.

Together the Alameda and Peninsula watersheds produced about six percent of the total water supply in 2007. The Alameda watershed, located in Alameda and Santa Clara Counties, contributes surface water supplies by storing rainfall and runoff in Calaveras and San Antonio Reservoirs. Rainfall and runoff captured in the Peninsula watershed in San Mateo County are stored as surface water supply in four reservoirs a) lower and upper Crystal Springs, b) San Andreas, c) Pilarcitos, and d) Stone Dam. The Alameda surface water sources are supplemented by a small amount of groundwater collected by the Sunol Filter Galleries near the Town of Sunol. Prior to delivery, water from the Alameda watershed and Sunol Filter Galleries is treated at Sunol Valley Water Treatment Plant and water from the Peninsula watershed is treated at Harry Tracy Water Treatment Plant. San Bruno produced well water is obtained from five deep wells located within the lower half of the City that are capable of producing approximately one-half of the City's annual water supply.

Safeguarding City water supply

Securing the City's water facilities is a top priority. Residents can be assured that the City of San Bruno is taking precautions to protect the public water supply against a possible terrorist attack. We are working with law enforcement agencies, public health officials, other water utilities, and the Department of Homeland Security to ensure City's water supply is protected. We have raised City's level of security and have implemented additional security measures as warranted. Some examples of security measures include fully enclosed and alarmed water storage facilities, 24 hour security monitoring, an expanded system of alarms, and daily water quality sampling.

Source Protection

Source protection is the primary barrier, the first line of defense against contamination of your drinking water at its source. Hetch Hetchy Reservoir, which is the largest reservoir in the SFPUC system, is located in Yosemite National Park. This reservoir provides approximately 94 percent of the total water supply to all twenty-nine Bay Area wholesale costumers. Spring snowmelt flows down the Tuolumne River and fills the reservoir. The high quality Hetch Hetchy water supply meets all federal and state criteria for watershed protection, disinfection treatment, bacteriological quality and operational standards. The SFPUC strictly controls activities on the watershed lands around their reservoirs, limiting activities to those compatible with maximum protection of the water quality.

Protecting Our Watersheds

The SFPUC actively and aggressively protects the natural water resources entrusted to its care. An annual report on the Hetch Hetchy and its neighboring watersheds is prepared to evaluate their sanitary conditions, water quality, and potential contamination sources. The report also presents performance results of watershed management activities implemented by the SFPUC and its partner agencies, such as the National Park Service, to reduce or eliminate the potential contamination sources. The 2007 sanitary survey concludes that very low levels of contaminants associated with wildlife and human activities exist in these upcoming watersheds.

The SFPUC also conducts sanitary surveys of the two local watersheds every five years. The potential contamination sources identified in the 2005 survey are similar to the upcountry watersheds.

These survey reports are available at the CDPH San Francisco District office (510-620-3474).

San Bruno's groundwater is drawn from a deep aquifer more than 200 feet below the surface. It is protected from contamination by impervious layers of clay deep in the ground. The soil layers filter contaminants borne by surface water and shallow groundwater that may eventually reach the aquifer over several centuries of time before it reaches the well locations. The wells are constructed to meet strict standards imposed by San Mateo County Environmental Health Division to ensure that no surface water or shallow groundwater can enter the aquifer at those points. In cooperation with San Mateo County Environmental Health Division, San Bruno participates in a wellhead protection program established to ensure the long-term protection of the quality of San Bruno's groundwater resources.

Source water assessments were conducted for the City of San Bruno water system in June, 2003.

The sources are considered most vulnerable to the following activities not associated with any detected contaminants: Automobile - repair shops, sewer collection systems, military installations, utility stations - maintenance areas and dry cleaners.

Possible Contaminating Activities (PCA) See Web site http://swap.ice.ucdavis.edu/TSinfo/TSsearch.asp

Water Treatment

Water treatment is the next layer of protection of the City's drinking water. Throughout 2007, the City's well water was disinfected with chloramine, a combination of chlorine and ammonia at the well-head. Also, City well water is sampled daily to ensure the health and safety of City's consumers. In addition, the City's Lions Field Well and Forest Lane Well are equipped with a filtering plant to remove iron and manganese and adjust pH levels prior to distribution to City's customers. This is to ensure that water from this particular well meets or exceeds all Drinking Water Standards as set by the California Department of Public Health (CDPH).

Water System Operations

Effective operation and maintenance of the distribution system ensures that the water maintains its quality as it travels through the system to your tap. The disinfectant residual in the water after treatment prevents the regrowth of microbial organisms during storage and transmission of water in the distribution system. The flushing of City's water mains and rotation of stored supplies also keeps the water fresh and limits the possibility for growth of such organisms. City of San Bruno conducts mandatory weekly water quality testing of the distribution system to ensure that the City's drinking water continues to be safe and healthy.

The City San Bruno also maintains an active cross connection control program to prevent the intrusion of potentially harmful materials into the drinking water system. Cross connection control is done by isolating hazards such as boilers, cooling towers, and fire sprinklers from the drinking water supply by installing approved backflow prevention devices.

Fluoride in the City's Drinking Water

Water supplied to The City of San Bruno by the SFPUC has been fluoridated since 1965. SFPUC completed a new fluoridation facility in the East Bay in September 2005; the SFPUC fluoridates the drinking water of its entire suburban wholesale service area to protect their customers' dental health. Because the SFPUC water supply that the City of San Bruno purchases is blended with the City's well water that is non-fluoridated, the water that you receive at your home may contain fluoride that is below the optimal level.

For more information about fluoride, contact your water service provider, or visit the SFPUC website at sfwater.org/fluoride. Local county health departments are also a good source of information about fluoride. Here are some phone numbers you may call:

- **SFPUC Fluoride Information Line (866) 668-6008**
- **San Mateo County Health Department (650) 372-8572**
- **County of Santa Clara Health Department (408) 885-3980**

Special Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/ Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the U.S. EPA Safe Drinking Water Hotline (800) 426-4791 or on U.S. EPA's Web site epa.gov/safewater.

The Highest Quality Water

The SFPUC's Water Quality Division regularly collects and tests water samples from reservoirs and designated sampling points throughout the system to ensure that the SFPUC's water meets or exceeds federal and state drinking water standards. In 2007, Water Quality staff conducted 42,250 drinking water tests in the Regional System, and treatment plant operators collected more than 77,000 water samples for treatment process control monitoring.

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Such substances are called contaminants. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

The adjacent table lists all drinking water contaminants detected in 2007. Contaminants below detection limits, such as arsenic, perchlorate, MTBE, and others, are not listed. The table contains the name of each contaminant, the applicable drinking water standards or regulatory action levels, the ideal goals for public health, the amount detected in water, the typical contaminant sources, and footnotes explaining the findings. The State allows the SFPUC to monitor for some contaminants less than once per year because their concentrations do not change. For certain other contaminants that were absence in the water based on many years of monitoring, the SFPUC received a monitoring waiver from the State.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides** that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Unregulated Contaminant Monitoring helps the U.S. EPA and DOHS to determine where certain contaminants occur and whether the contaminants need to be regulated. During 2004, the SFPUC and the City of San Bruno monitored as many as twelve unregulated contaminants including MTBE, perchlorate, herbicides, and pesticides. These contaminants were not detected in any of SFPUC or City of San Bruno water supplies.

In making significant modifications to its disinfectant processes, the City integrated all of the disinfection equipment into its Supervisory Control and Date Acquisition (SCADA) system, thereby adding another level of safety to drinking water quality. Other improvements include pipelines, regulating stations, and an additional well that will further provide the system's managers with more flexibility and capacity to operate the system to the best advantage of the customer.

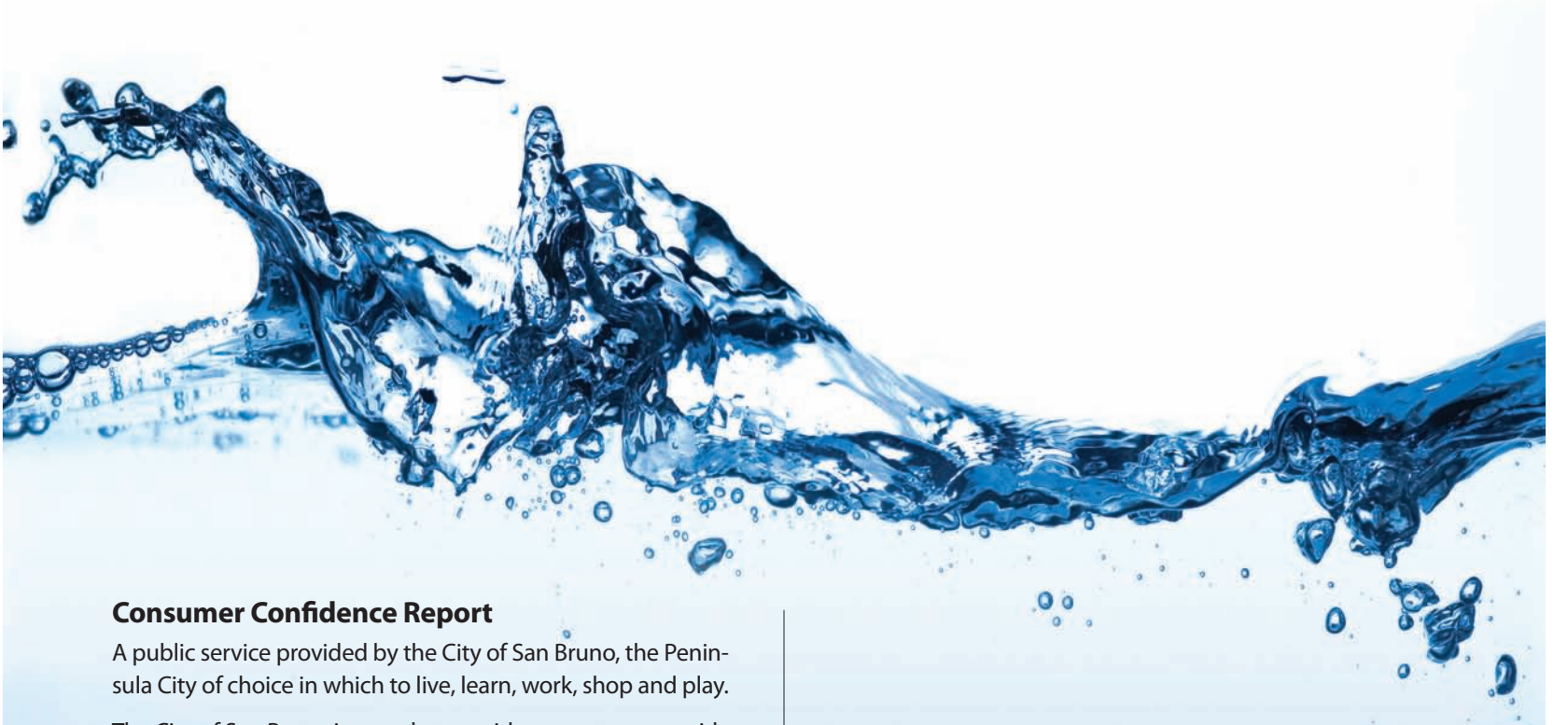
What you should know about Cryptosporidium and Giardia Lamblia

Cryptosporidium and Giardia Lamblia are parasitic microbes found in most surface water supplies and can pose a potential health threat. If ingested, either may produce symptoms of diarrhea, stomach cramps, upset stomach, and slight fever. The SFPUC tests regularly for Cryptosporidium and Giardia Lamblia in both source and treated water supplies. Both were occasionally found at very low levels in the SFPUC's water in 2004.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, including Cryptosporidium and Giardia Lamblia. The presence of small amounts of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the U.S. EPA Safe Drinking Water Hotline at (800) 426-4791.

Lead and Copper

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. It is also recommended that homeowners who are concerned about elevated lead levels run their tap 30 seconds to two minutes before use. Additional information is available from the Safe Drinking water hotline (800) 426-4791 or at the US EPA's we site www.epa.gov.



Consumer Confidence Report

A public service provided by the City of San Bruno, the Peninsula City of choice in which to live, learn, work, shop and play.

The City of San Bruno is proud to provide our customers with the annual Consumer Confidence Report (CCR). This year's report is in compliance with new regulations of the 1998 Safe Drinking Water Act (SDWA) reauthorization, that charges the U.S. Environmental Protection Agency (U.S.EPA) with updating and strengthening the tap water regulatory program. This report presents water quality and supply information for 2007. During 2007, the City and the San Francisco Public Utilities Commission (SFPUC) monitored the water quality of both source and treated water supplies. The City of San Bruno wants you, our customer, to know that your water system has met all water quality standards established by the U.S.EPA and the California Department of Public Health (CDPH).

How Can the Public Be Involved?

Meetings of the City of San Bruno City Council begin at 7:00 PM on the second and fourth Tuesdays of each month and are open to the public. Meetings are held at the San Bruno Senior Center located at 1555 Crystal Springs Road.

If you have any questions or need further information, please feel free to contact the City of San Bruno Water Division at (650) 616-7162, or by mail at City of San Bruno Water Division, 567 El Camino Real, San Bruno, CA 94066-4247. A copy of the 2006 Consumer Confidence Report will also be posted on the City's website at www.sanbruno.ca.gov.

Decisions about SFPUC water quality issues are made from time to time in public meetings held at San Francisco City Hall, 1 Doctor Carlton B. Goodlett Place, Room 400, San Francisco CA 94102. Inquiries about these meetings may be directed to the Office of the Commission Secretary at (415) 554-3165. Additional information about the SFPUC water quality may be obtained by calling (877) 737-8297, or by going to their website at www.sfwater.org.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

此份有关你的食水报告,内有重要资料和讯息,请找他人为你翻译及解释清楚。

City of San Bruno Water Quality Data for Year 2007 [1]

DETECTED CONTAMINANTS	Unit	MCL	PHG or (MCLG)	SFPUC Range	SFPUC Average or (Max)	San Bruno Range	San Bruno Average or (Max)	Typical Sources in Drinking Water
TURBIDITY [2]								
Unfiltered Hetch Hetchy Water, max 5 NTU	–	TT	NA	0.22 - 0.48 [3]	(1.98) [4]	NA	NA	Soil run-off
Filtered Water - Harry Tracy WTP, max 1 NTU	–	TT	NA	-	(0.17)	NA	NA	Soil run-off
more than 95% of samples =< 0.3 NTU	–	TT	NA	100% [5]	-	NA	NA	Soil run-off
Filtered Water - Sunol Valley WTP, max 1 NTU	–	TT	NA	-	(0.54)	NA	NA	Soil run-off
more than 95% of samples =< 0.3 NTU	–	TT	NA	98% [5]	-	NA	NA	Soil run-off
DISINFECTION BY-PRODUCTS								
Total Trihalomethanes (TTHMs)	ppb	80	NA	11 - 44	[32] [6]	9.3 - 14.3	11.9 [6]	By-product of drinking water chlorination
Total Haloacetic Acids (HAAs)	ppb	60	NA	3 - 29	[18] [6]	4.4 - 7.1	5.7 [6]	By-product of drinking water chlorination
Total Organic Carbon (TOC) [7]	ppm	NS	NA	0.7 - 2.5	1.94	NA	NA	Various natural and man-made sources
MICROBIOLOGICAL								
Total Coliform, highest % of positives detected in any month	%	≤ 5.0	[0]			0	0	Naturally present in the environment
Giardia lamblia	cyst/L	TT	[0]	ND - 0.03	[0.03]	0	0	Naturally present in the environment
INORGANIC CHEMICALS								
Fluoride (source water) [8]	ppm	2.0	1.0	< 0.1 - 0.7	0.3	ND	ND	Erosion of natural deposits
Chlorine (including free chlorine and chloramine)	ppm	MRDL = 4.0	MRDLG = 4	1.8 - 2.4	2.0	1.4 - 2.4	1.8 [6]	Drinking water disinfectant added for treatment

CONSTITUENTS WITH SECONDARY STANDARDS	Unit	SMCL	PHG	Range	Average	Range	Average	Typical Sources in Drinking Water
Chloride	ppm	500	NA	< 3 - 17	9	29 - 107	75	Runoff / leaching from natural deposits
Specific Conductance	µS/cm	1600	NA	32 - 320	185	25 - 435	155	Substances that form ions when in water
Sulfate	ppm	500	NA	0.8 - 37	17.6	20 - 75	49	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	NA	25 - 193	109	250 - 464	370	Runoff / leaching from natural deposits
Turbidity	NTU	5	NA	0.08 - 0.24	0.15	0.89 - .11	0.24	Soil run-off
Iron	ppm	0.3	NA	ND	ND	<0.05	<0.05	Leaching from natural deposits
Manganese	ppm	0.05	NA	ND	ND	<0.05	0.03	Leaching from natural deposits

OTHER WATER QUALITY PARAMETERS	Unit	NL	Range	Average	Range	Average
Alkalinity (as CaCO3)	ppm	NA	8 - 112	59	128 - 186	156
Calcium	ppm	NA	3 - 29	15.3	29 - 56	39
Hardness (as CaCO3)	ppm	NA	8 - 116	61	152 - 284	222
Magnesium	ppm	NA	< 0.2 - 9.4	5.4	< 0.5 - 12.3	6.6
pH	unit	NA	8.7 - 9.3	9.0	7.2 - 8.9	7.97
Potassium	ppm	NA	0.3 - 1.5	0.9	3.4 - 6.0	4.7
Silica	ppm	NA	4.2 - 9.3	6.1	25 - 30	27.5
Sodium	ppm	NA	3 - 22	14	36 -67.5	52

KEY

< / ≤ = less than / less than or equal to
AL = Action Level
Max = Maximum
NA = Not applicable
ND = Non Detected
NL = Notification
NS = No Standard
NTU = Nephelometric Turbidity Unit
ppb = parts per billion
ppm = parts per million
TT = Treatment Technique
µS/cm = microSiemens / centimeter

(1) All results met State and Federal drinking water regulations.
(2) Turbidity is the water clarity indicator; it also indicates the quality of the water and the treatment system efficiency.
(3) Turbidity is measured every four hours. These are monthly average turbidity values.
(4) This is a single, maximum measuring result.
(5) This is the minimum percentage of time that the filtered water turbidity was less than 0.3 NTU.
(6) This is the highest quarterly running annual average value.
(7) TOC is a precursor for disinfection byproduct formation.
(8) The SFPUC adds fluoride to the naturally occurring level to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.8 - 1.5 ppm, as required by CDPH regulations.

Note: Additional water quality data may be obtained by calling the City of San Bruno Water Division at (650) 616-7162

Definitions to Understand this Report

The following definitions are for each contaminant analyzed:

Public Health Goal (PHG) The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U. S. Environmental Protection Agency (USEPA).

Maximum Residual Disinfectant Level Goal (MRDLG) The level of a disinfectant added for water treatment below which there is no known or expected risk of health. MRDLGs are set by the U.S. Environmental Protection Agency.

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Residual Disinfectant Level (MRDL) The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Primary Drinking Water Standard or (PDWS) MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS) MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminations with SDWSs do not affect the health at the MCL levels.

Variances and Exemptions Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Treatment Technique (TT) A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Waiver State permission to decrease the monitoring frequency for a particular contaminant.

Additional Definitions:

ND Not detectable at testing limit.

ppm parts per million or milligrams per liter (mg/L)

ppb parts per billion or micrograms per liter (ug/L)

pCi/L picocuries per liter (a measure of radiation)

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